SECTION 1 - GENERAL

8.1.1 The Models 500 and 510 CMS shall have a configuration of 5 Pixel Matrix Modules high by 12 Pixel Matrix Modules across (60 modules) forming a continuous matrix display of 96 pixels across by 25 pixels high (2400 pixels).

8.1.2 The Model 520 shall have a configuration of 5 Pixel Matrix Modules high by 6 Pixel Matrix Modules across (30 modules) forming a continuous matrix display of 48 pixels across by 25 pixels high (1200 pixels).

8.1.3 The Models 500 and 510 CMS shall have a Control Compartment on the front right side of its housing. The Control Compartment shall be accessible through panels on the sign's right end side and the compartment front door.

8.1.4 The Model 520 shall have a Control Compartment on the rear side of its housing. The Control Compartment shall be accessible through the compartment back door.

8.1.5 The Models 500 and 510 CMS systems shall be designed to operate on a Single Phase 120/240VAC Service, rated at 48KVA (minimum) where incandescent lamps are used, or 20KVA (minimum) where Xenon pixels are used.

8.1.6 The Model 520 CMS system shall be designed to operate on a Single Phase, 120/240 VAC Service, rated at 24KVA (minimum) where incandescent lamps are used, or 10KVA (minimum) where Xenon pixels are used.

8.1.6 The total weight of the supplied CMS shall not exceed:

Model 500	-	2400 pounds (1089.6kg)
Model 510	-	2000 pounds (908kg)
Model 520	-	1000 pounds (454kg)

A verification of the total weight shall be documented and included in the Certificate of Compliance.

8.1.8 ITEMS SUPPLIED

8.1.8.1 The CMS System shall include the Model 500 CMS or Model 510 CMS or Model 520 CMS as per contract.

8.1.8.2 Controller, Controller Cabinet, Controller Isolation Assembly, CMS Harnesses #4 and #5 and all other required equipment and wiring necessary to operate the system. The Controller shall be State Furnished unless called out in Contract Special Provisions.

8.1.8.3 Step Down Transformer(s) where Xenon pixels are used:

Model 500 & 510	-	Four - 5KVA (one per line) - 120VAC to 20VAC
Model 520	-	Two - 5KVA (one per line) - 120VAC to 20VAC

8.1.9 CMS HARNESSES

8.1.9.1 A Harness No. 1 shall be provided between each PMM connector assembly (CA and CB connectors) and its associated PDM CC connector in the associated PXDA.

8.1.9.1.1 Each harness shall consist of:

Required conductor quantity
No. 22 AWG or larger conductors
1 CAS Connector
1 CBS Connector
1 CCP Connector

8.1.9.1.2 Each harness shall be routed in properly supported cable trays.

8.1.9.2 A Harness No. 2 shall be provided between each PXDA CD connector and the associated PDA No.4 CE connector.

8.1.9.2.1 Each harness shall consist of:

Required conductor quantity
No. 22 AWG or larger conductors
1 CDS Connector
1 CES Connector

8.1.9.3 A Harness No. 3 shall be provided between the PDA No.4 CF connector and the associated Controller Interface Terminal Block Positions on the CIP.

8.1.9.3.1 The harness shall consist of:

Required conductor quantity
No. 22 AWG or larger conductors
1 CFS Connector
Conductors-Stripped and Tinned

8.1.9.4 A Harness No.4 shall be provided to interconnect the CMS CIP Panel Terminal Position to the Controller Cabinet CIA Assembly (via C8S and C9S connectors).

8.1.9.4.1 The harness shall consist of:

91.44m (300 feet) of Atlas Cable,
Type A-881or equal
(24 pr. #18 AWG, multicolored pairs)
1 C8S Connector
1 C9S Connector
Logic Signal & DC Logic Ground
Conductors - Stripped and tinned

8.1.9.5 A Harness No.5 shall be provided to interconnect the CMS CIP Panel Terminal Positions (Current Monitor Circuits) to the TB1 in the Model 334C Controller Cabinet.

8.1.9.5.1 The harness shall consist of:

91.44m (300 feet) of Atlas Cable,
Type A-881or equal
(6 pr. #18 AWG, multicolored pairs)
Conductors - Stripped and tinned

8.1.9.6 The harnesses #4 and #5 shall be neatly rolled up on a wooden reel and prepared for shipping. It shall be so designated and labeled with the associated CMS.

8.1.9.7 All harnesses shall have a minimum of .0.610m (2 feet) of slack available on each connector or connector assembly end and shall be permanently labeled according to connector pin assignments, device addressing and/or function.

8.1.9.8 Harnesses #1and #2 shall provide enough slack, to completely pull the PXDAs out of the equipment rack, to facilitate maintenance.

8.1.10 SPARE PARTS

Spares parts shall meet the requirements of these specifications. The following items shall be included per each delivered Model 500, 510 or 520 CMS system:

1 each - Pixel Matrix Module with pixels (PMM)
5 each - Pixel Driver Module (PDM)
1 each - Pixel Driver Assembly (PXDA)
1 each - CMS Isolation Module
1 each - Controller Isolation Assembly (CIA)